Shamet, Stefania

From: Martin, Steven M IWR@NAO <Steven.M.Martin@usace.army.mil>
Sent: Tuesday, December 17, 2013 8:20 AM
To: Shamet, Stefania; david.kaplan@usdoj.gov
Subject: FW: Smith Farm Wetland Delineation Confirmation (UNCLASSIFIED)
Attachments: datapoints - Smith Farms - 24 Oct 2013.kmz; Smith Farms - farm field datapoints from 24 Oct 2013.pdf

Non - responsive

-----Original Message-----
From: Knepper, David A NAO
Sent: Tuesday, December 17, 2013 7:53 AM
To: Jim Cahoon
Cc: Martin, Steven M IWR@NAO; Jim Boyd (jim@boydlaw.org)
Subject: RE: Smith Farm Wetland Delineation Confirmation (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Hi Jim,

Sorry for not getting this to you sooner (see attached).

Per the NRCS hydrology tool for evaluating remote sensing data I would generally do a rainfall analysis to document precip trends prior to each available aerial photo date. Similarly, to address user cautions in the Regional Supplement for different field indicators of wetland hydrology (e.g., dry season water table), I would also review local precip data to determine whether there was unusual rainfall activity prior to our field visit. However for this project it did not appear that such analyses would clarify the wetland determination at any of the 4 datapoints so I decided to not do them.

Happy holidays,

Dave

U.S. Army Corps of Engineers
803 Front Street
Norfolk, VA 23510-1096

phone (757) 201-7488
fax (757) 201-7678

david.a.knepper@usace.army.mil

-----Original Message-----
From: Jim Cahoon [mailto:jim@bay-environmental.com]
Sent: Friday, December 13, 2013 9:37 AM
To: Knepper, David A NAO
Cc: Martin, Steven M IWR@NAO; Jim Boyd (jim@boydlaw.org)
Subject: [EXTERNAL] Smith Farm Wetland Delineation Confirmation

David,

We are finalizing the mapping for the Smith Farm wetland delineation confirmation request as we now have surveyed information back. The intent is to prepare one single graphic for the property for confirmation, and as such, we have compiled our information with both Chuck Wolfe's delineation(s) and with the consent order information, and will be hoping to submit the exhibit to you by the end of next week.

Have you had a chance to transcribe the data points that we all collected during our site visit?

Thanks,

Jim Cahoon
Bay Environmental, Inc.

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

Google Earth Pro

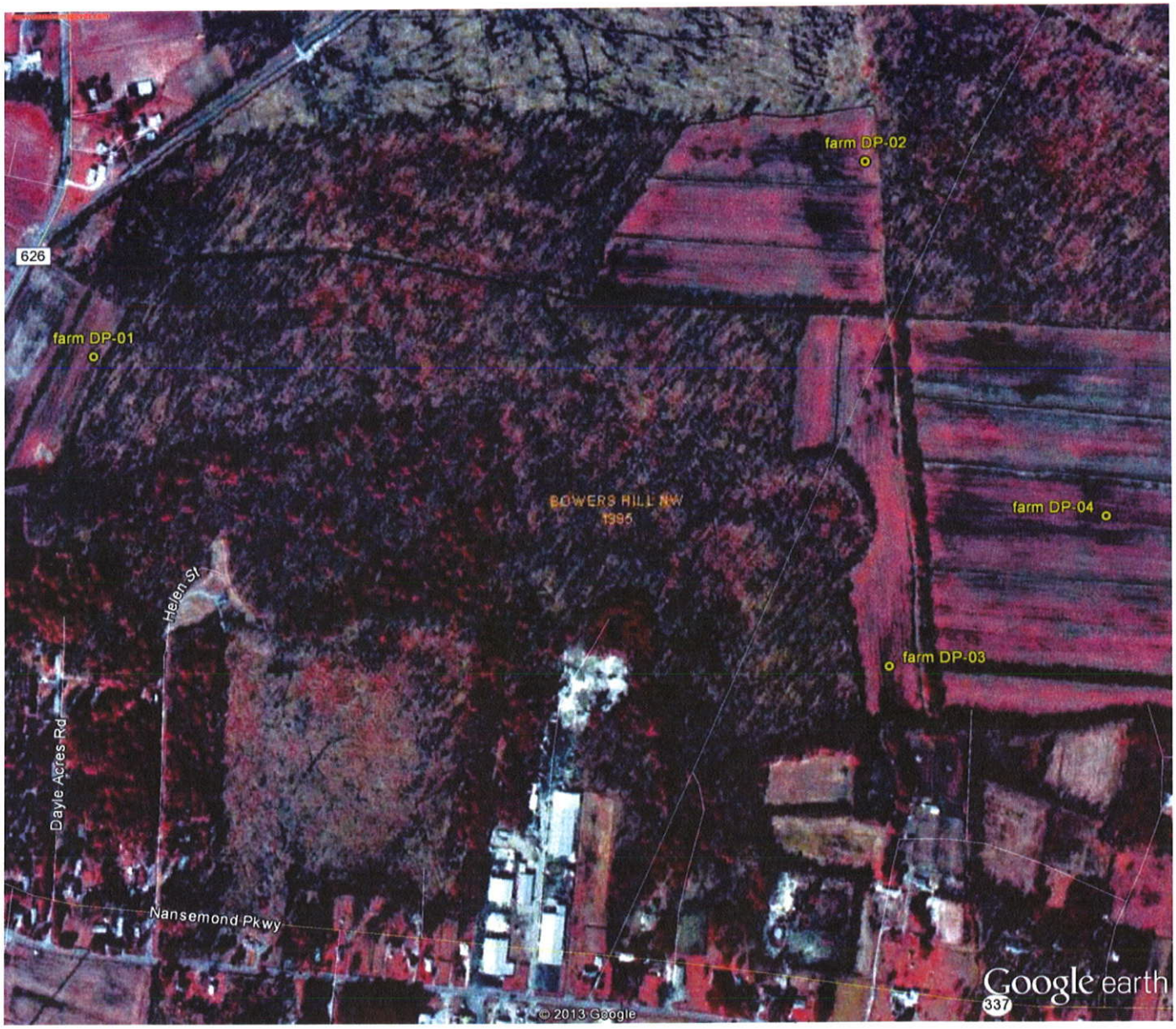
feet 2000
meters 700

2011 color IR aerial

Google Earth Pro

feet 2000
meters 700

2009 color IR aerial



Google Earth Pro

feet 2000
meters 700

1994 color IR aerial

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Smith Farms NAO-1998-02184 (98-R5657 and 13-V0134) City/County: Suffolk Sampling Date: 24 Oct 2013

Applicant/Owner: Smith Farms Enterprises or Boyd & Boyd P.C. c/o Mr. James M. Boyd State: VA Sampling Point: DP-01

Investigator(s): S. Martin & D. Knepper Section, Township, Range: N/A

Landform (hillslope, terrace, etc.): Mineral soil flat Local relief (concave, convex, none): flat Slope (%): N/A

Subregion (LRR or MLRA): T Lat: 36.824218° Long: -76.463927° Datum: WGS84

Soil Map Unit Name: Weston fine sandy loam (Typic Endoaquults) NWI classification: Not mapped as wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes __ __ No ✓ (If no, explain in Remarks.)

Are Vegetation Y, Soil Y, or Hydrology Y significantly disturbed? Are "Normal Circumstances" present? Yes __ __ No __ ✓ __

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes __ ✓ __	No __ __	**Is the Sampled Area within a Wetland?** Yes __ __ No __ ✓ __
Hydric Soil Present?	Yes __ ✓ __	No __ __	
Wetland Hydrology Present?	Yes __ __	No __ ✓ __	

Remarks:

Plot taken along E edge of active cropland in only area that had questionable hydrology signatures on recent aerial photography. Plot taken within active cropland so vegetation manipulated (planted with soybeans) and soil disturbed (well-developed plow zone). Local onsite hydrology has been manipulated (field crowning and associated ditches) since prior to the CWA. Chapter 5 of the Regional Supplement & Atypical Situations are applicable. Per Lake Kilby data the precipitation for August was just above the 30th percentile and for September was well below the 30th percentile October precipitation has been within the 30th to 70th percentile.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ Sediment Deposits (B2)
- __ Drift Deposits (B3)
- __ Algal Mat or Crust (B4)
- __ Iron Deposits (B5)
- __ Inundation Visible on Aerial Imagery (B7)
- __ Water-Stained Leaves (B9)
- __ Aquatic Fauna (B13)
- __ Marl Deposits (B15) **(LRR U)**
- __ Hydrogen Sulfide Odor (C1)
- __ Oxidized Rhizospheres along Living Roots (C3)
- __ Presence of Reduced Iron (C4)
- __ Recent Iron Reduction in Tilled Soils (C6)
- __ Thin Muck Surface (C7)
- __ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- __ Surface Soil Cracks (B6)
- __ Sparsely Vegetated Concave Surface (B8)
- __ Drainage Patterns (B10)
- __ Moss Trim Lines (B16)
- __ Dry-Season Water Table (C2)
- __ Crayfish Burrows (C8)
- __ Saturation Visible on Aerial Imagery (C9)
- __ Geomorphic Position (D2)
- __ Shallow Aquitard (D3)
- __ FAC-Neutral Test (D5)
- __ Sphagnum moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	Yes __	__ No __ ✓ __	Depth (inches): N/A
Water Table Present?	Yes __	__ No __ ✓ __	Depth (inches): N/A
Saturation Present? (includes capillary fringe)	Yes __	__ No __ ✓ __	Depth (inches): N/A

Wetland Hydrology Present? Yes __ __ No __ ✓ __

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

C9 is not applicable because this indicator requires on-site verification that saturation signatures seen on photos correspond to hydric soils or other evidence of a seasonal high water table. During the field visit no obvious depressions, stunted crops, or any other field indicator that would correspond to the aerial signature was observed.

No listed field indicators of wetland hydrology were observed during the field visit.

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: DP-01

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5.			
6.			
	0 = Total Cover		
50% of total cover:	20% of total cover:		
Sapling Stratum (Plot size: 30-foot radius)			
1. N/A			
2.			
3.			
4.			
5.			
6.			
	0 = Total Cover		
50% of total cover:	20% of total cover:		
Shrub Stratum (Plot size: 30-foot radius)			
1. N/A			
2.			
3.			
4.			
5.			
6.			
	0 = Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 30-foot radius)			
1. Toxicodendron radicans	<1	Yes	FAC
2. Acalypha gracilens	<1	Yes	FAC
3. Chasmanthium laxum	<1	Yes	FACW
4. Juncus secundus	<1	Yes	FAC
5. Chamaecrista fasciculata	<1	Yes	FACU
6. Smilax rotundifolia	<1	Yes	FAC
7. Amaranthus hydridus	<1	Yes	UPL
8. Diodia virginiana	<1	Yes	FACW
9. Phyllanthus caroliniensis	<1	Yes	FAC
10. Eupatorium capillifolium	<1	Yes	FACU
11. Eurybia compacta?	<1	Yes	FACU
	11 = Total Cover		
50% of total cover: <5.5	20% of total cover: <2.2		
Woody Vine Stratum (Plot size: 30-foot radius)			
1. N/A			
2.			
3.			
4.			
5.			
	0 = Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 11 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 63.6 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: 0 (A)	0 (B)

Prevalence Index = B/A = 0

Hydrophytic Vegetation Indicators:

__ 1 - Rapid Test for Hydrophytic Vegetation

✓ 2 - Dominance Test is >50%

__ 3 - Prevalence Index is ≤3.0[1]

__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine – All woody vines, regardless of height.

Chapter 5 of the Regional Supplement states "The goal is to determine the plant community that would occupy the site under normal circumstances, if the vegetation were not cleared or manipulated." It lists 5 possible ways to do this: 1) examine volunteer species, 2) look for undisturbed reference, 3)check NRCS reports, 4) examine pre-farming aerials, etc. & 5) cease cropping and see what plant community develops.

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks: (If observed, list morphological adaptations below).

Plot taken within active cropland so no T, SAP, SHR or WV strata present. Per Chapter 5 of the Regional Supplement, the vegetation factor will be evaluated based on the volunteer (i.e., not planted) species that were observed in the plot. The sample plot was planted in soybean (Glycine max) which at the time of the field visit comprised ~80% of the veg cover. Unidentified species are assumed to have an UPL field indicator status.

SOIL

Sampling Point: DP-01

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 to 12	10YR3/1	100	N/A	N/A	N/A	N/A	sil	Ap
12 to 23+	2.5Y5/1	95	10YR5/4	5	C	M	sil	B; prominent

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- . Histosol (A1)
- . Histic Epipedon (A2)
- ___ Black Histic (A3)
- . Hydrogen Sulfide (A4)
- . Stratified Layers (A5)
- . Organic Bodies (A6) **(LRR P, T, U)**
- . 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ___ Muck Presence (A8) **(LRR U)**
- . 1 cm Muck (A9) **(LRR P, T)**
- ✓ Depleted Below Dark Surface (A11)
- . Thick Dark Surface (A12)
- ___ Coast Prairie Redox (A16) **(MLRA 150A)**
- . Sandy Mucky Mineral (S1) **(LRR O, S)**
- . Sandy Gleyed Matrix (S4)
- . Sandy Redox (S5)
- . Stripped Matrix (S6)
- . Dark Surface (S7) **(LRR P, S, T, U)**
- ___ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- . Thin Dark Surface (S9) **(LRR S, T, U)**
- . Loamy Mucky Mineral (F1) **(LRR O)**
- . Loamy Gleyed Matrix (F2)
- . Depleted Matrix (F3)
- . Redox Dark Surface (F6)
- . Depleted Dark Surface (F7)
- . Redox Depressions (F8)
- . Marl (F10) **(LRR U)**
- . Depleted Ochric (F11) **(MLRA 151)**
- . Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ___ Umbric Surface (F13) **(LRR P, T, U)**
- ___ Delta Ochric (F17) **(MLRA 151)**
- . Reduced Vertic (F18) **(MLRA 150A, 150B)**
- . Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR O)**
- ___ 2 cm Muck (A10) **(LRR S)**
- ___ Reduced Vertic (F18) **(outside MLRA 150A,B)**
- ___ Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___ Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
- . Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- . Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: N/A

Depth (inches): N/A

Hydric Soil Present? Yes ___ ✓ ___ No ___ ___

Remarks:

Well-developed plow zone. No oxidized rhizospheres observed, but amount of organics in Ap could mask their presence.

F13 not applicable because not a depression or other concave landscape position.

Farm 3627, Tract 4554, Fields 11-12 determined by NRCS to be PC-cropland on 03 July 2013 (NRCS-CPA-026e).

Smith Farms
NAO-1998-02184 (98-R5657 and 13-V0134)
(Smith Farm 98-R5657)
Field visit on 24 Oct 2013

Photo 1: Datapoint DP-01 looking W from edge of soybean field toward Shoulders Hill Road in Suffolk, VA. Just north of wettest signature on available aerials, but no obvious wetter-looking area was evident during the field visit.

Photo 2: Same as Photo 1. No observed field indicators of wetland hydrology nor obvious difference in crop vigor.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Smith Farms NAO-1998-02184 (98-R5657 and 13-V0134) City/County: Suffolk Sampling Date: 24 Oct 2013

Applicant/Owner: Smith Farms Enterprises or Boyd & Boyd P.C. c/o Mr. James M. Boyd State: VA Sampling Point: DP-02

Investigator(s): S. Martin & D. Knepper Section, Township, Range: N/A

Landform (hillslope, terrace, etc.): Mineral soil flat Local relief (concave, convex, none): flat Slope (%): N/A

Subregion (LRR or MLRA): T Lat: 36.826522° Long: -76.452277° Datum: WGS84

Soil Map Unit Name: Torhunta loam (Typic Humaquepts) NWI classification: E of mapped Pf

Are climatic / hydrologic conditions on the site typical for this time of year? Yes __ __ No ✓ (If no, explain in Remarks.)

Are Vegetation Y, Soil Y, or Hydrology Y significantly disturbed? Are "Normal Circumstances" present? Yes __ __ No ✓

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes __ __ No ✓	**Is the Sampled Area within a Wetland?** Yes __ __ No ✓
Hydric Soil Present?	Yes ✓ No __	
Wetland Hydrology Present?	Yes ✓ No __	

Remarks:

Plot taken along E edge of active cropland in vicinity of questionable hydrology signatures on recent aerial photography - chose the lowest looking area in the immediate area although aerial signatures look stronger to the W. Plot taken within active cropland so vegetation manipulated (planted with soybeans) and soil disturbed (well-developed plow zone). Local onsite hydrology has been manipulated (field crowning and associated ditches) since prior to the CWA. Chapter 5 of the Regional Supplement & Atypical Situations are applicable. Per Lake Kilby data the precipitation for August was just above the 30th percentile and for September was well below the 30th percentile October precipitation has been within the 30th to 70th percentile.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ Sediment Deposits (B2)
- __ Drift Deposits (B3)
- __ Algal Mat or Crust (B4)
- __ Iron Deposits (B5)
- __ Inundation Visible on Aerial Imagery (B7)
- __ Water-Stained Leaves (B9)
- __ Aquatic Fauna (B13)
- __ Marl Deposits (B15) **(LRR U)**
- __ Hydrogen Sulfide Odor (C1)
- __ Oxidized Rhizospheres along Living Roots (C3)
- __ Presence of Reduced Iron (C4)
- __ Recent Iron Reduction in Tilled Soils (C6)
- __ Thin Muck Surface (C7)
- __ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- __ Surface Soil Cracks (B6)
- __ Sparsely Vegetated Concave Surface (B8)
- __ Drainage Patterns (B10)
- __ Moss Trim Lines (B16)
- ✓ Dry-Season Water Table (C2)
- __ Crayfish Burrows (C8)
- __ Saturation Visible on Aerial Imagery (C9)
- __ Geomorphic Position (D2)
- __ Shallow Aquitard (D3)
- ✓ FAC-Neutral Test (D5)
- __ Sphagnum moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	Yes __ No ✓	Depth (inches): N/A
Water Table Present?	Yes ✓ No __	Depth (inches): 20
Saturation Present? (includes capillary fringe)	Yes ✓ No __	Depth (inches): >12

Wetland Hydrology Present? Yes ✓ No __

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

C9 is not applicable because this indicator requires on-site verification that saturation signatures seen on photos correspond to hydric soils or other evidence of a seasonal high water table. During the field visit no obvious depressions, stunted crops, or any other field indicator that would correspond to the aerial signature was observed.

Recent rainfall records should be evaluated to see if C2 is clearly met.

D5 is met if non-dominants are considered. Considering the above and how sparse the non-planted, volunteer weedy species were it is hard to consider this a strong field indicator of wetland hydrology.

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: DP-02

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5.			
6.			
	0 = Total Cover		
50% of total cover:	20% of total cover:		
Sapling Stratum (Plot size: 30-foot radius)			
1. N/A			
2.			
3.			
4.			
5.			
6.			
	0 = Total Cover		
50% of total cover:	20% of total cover:		
Shrub Stratum (Plot size: 30-foot radius)			
1. N/A			
2.			
3.			
4.			
5.			
6.			
	0 = Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 30-foot radius)			
1. Panicum capillare	<5	Yes	FAC
2. Ranunculus sp.	<5	Yes	--
3. Commelina diffusa	2		FACW
4. Hypericum mutilum	2		FACW
5. Paspalum laeve	1		FACW
6. Setaria parviflora	<1		FACW
7. Sida spinosa	<1		UPL
8.			
9.			
10.			
11.			
	17 = Total Cover		
50% of total cover: <8.5	20% of total cover: <3.4		
Woody Vine Stratum (Plot size: 30-foot radius)			
1. N/A			
2.			
3.			
4.			
5.			
	0 = Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	<6	x 2 =	<12
FAC species	<5	x 3 =	<15
FACU species	0	x 4 =	0
UPL species	<6	x 5 =	<30
Column Totals:	17 (A)		57 (B)

Prevalence Index = B/A = 3.35

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

. . 2 - Dominance Test is >50%

. . 3 - Prevalence Index is ≤3.0[1]

. . Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine – All woody vines, regardless of height.

Chapter 5 of the Regional Supplement states "The goal is to determine the plant community that would occupy the site under normal circumstances, if the vegetation were not cleared or manipulated." It lists 5 possible ways to do this: 1) examine volunteer species, 2) look for undisturbed reference, 3)check NRCS reports, 4) examine pre-farming aerials, etc. & 5) cease cropping and see what plant community develops.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks: (If observed, list morphological adaptations below).

Plot taken within active cropland so no T, SAP, SHR or WV strata present. Per Chapter 5 of the Regional Supplement, the vegetation factor will be evaluated based on the volunteer (i.e., not planted) species that were observed in the plot. The sample plot was planted in soybean (Glycine max) which at the time of the field visit comprised ~85% of the veg cover. Unidentified species are assumed to have an UPL field indicator status.

SOIL

Sampling Point: DP-02

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 to 12	10YR2/1	100	N/A	N/A	N/A	N/A	sil	Ap
12 to 22+	10YR5/1	85	10YR5/6-5/8	15	C	M	scl	B; prominent

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- . Histosol (A1)
- . Histic Epipedon (A2)
- ___ Black Histic (A3)
- . Hydrogen Sulfide (A4)
- . Stratified Layers (A5)
- . Organic Bodies (A6) **(LRR P, T, U)**
- . 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ..... Muck Presence (A8) **(LRR U)**
- . 1 cm Muck (A9) **(LRR P, T)**
- . ✓ Depleted Below Dark Surface (A11)
- . Thick Dark Surface (A12)
- ___ Coast Prairie Redox (A16) **(MLRA 150A)**
- . Sandy Mucky Mineral (S1) **(LRR O, S)**
- . Sandy Gleyed Matrix (S4)
- . Sandy Redox (S5)
- . Stripped Matrix (S6)
- . Dark Surface (S7) **(LRR P, S, T, U)**
- ___ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- . Thin Dark Surface (S9) **(LRR S, T, U)**
- . Loamy Mucky Mineral (F1) **(LRR O)**
- . Loamy Gleyed Matrix (F2)
- . Depleted Matrix (F3)
- . Redox Dark Surface (F6)
- . Depleted Dark Surface (F7)
- . Redox Depressions (F8)
- . Marl (F10) **(LRR U)**
- . Depleted Ochric (F11) **(MLRA 151)**
- . Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ___ Umbric Surface (F13) **(LRR P, T, U)**
- ..... Delta Ochric (F17) **(MLRA 151)**
- . Reduced Vertic (F18) **(MLRA 150A, 150B)**
- . Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR O)**
- ..... 2 cm Muck (A10) **(LRR S)**
- ___ Reduced Vertic (F18) **(outside MLRA 150A,B)**
- ___ Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___ Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
- . Red Parent Material (TF2)
- ..... Very Shallow Dark Surface (TF12)
- . Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: N/A

Depth (inches): N/A

Hydric Soil Present? Yes ___ ✓ ___ No _____

Remarks:

Well-developed plow zone. No oxidized rhizospheres observed, but amount of organics in Ap could mask their presence.

F13 not applicable because not a depression or other concave landscape position.

Farm 3627, Tract 4554, Fields 1-10 determined by Greg Hammer, NRCS to be PC-cropland on 03 July 2013.

Smith Farms
NAO-1998-02184 (98-R5657 and 13-V0134)
(Smith Farm 98-R5657)
Field visit on 24 Oct 2013

Photo 3: Looking S at DP-02. Plot was taken in wettest looking area in the immediate vicinity, but per GPS location it was east of wettest aerial signature in this field.

Photo 4: Same as Photo 3, looking at soil profile at DP-02.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Smith Farms NAO-1998-02184 (98-R5657 and 13-V0134) City/County: Chesapeake Sampling Date: 24 Oct 2013

Applicant/Owner: Smith Farms Enterprises or Boyd & Boyd P.C. c/o Mr. James M. Boyd State: VA Sampling Point: DP-03

Investigator(s): S. Martin & D. Knepper Section, Township, Range: N/A

Landform (hillslope, terrace, etc.): Mineral soil flat Local relief (concave, convex, none): discernable depression Slope (%): 0 to 1

Subregion (LRR or MLRA): T Lat: 36.820409° Long: -76.451964° Datum: WGS84

Soil Map Unit Name: Tomotley-Deloss complex, 0 to 1 percent slopes (Typic Endoaquults) NWI classification: Not mapped as wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes __ __ No ✓ (If no, explain in Remarks.)

Are Vegetation Y, Soil Y, or Hydrology Y significantly disturbed? Are "Normal Circumstances" present? Yes __ __ No __ ✓ __

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes __ ✓ __ No ____	**Is the Sampled Area within a Wetland?** Yes __ ✓ __ No __ __
Hydric Soil Present?	Yes __ ✓ __ No __ __	
Wetland Hydrology Present?	Yes __ ✓ __ No __ __	

Remarks:

Plot taken along S edge of cropland in area that had consistent, strong hydrology signatures on available recent aerial photography. Plot taken within an area that appeared to not have been planted but upslope areas planted to soybeans. Soil disturbed (plow zone), looks like it was recently tilled. Field crowning not evident in this portion of the field. Chapter 5 of the Regional Supplement & Atypical Situations are applicable. Per Lake Kilby data the precipitation for August was just above the 30th percentile and for September was well below the 30th percentile October precipitation has been within the 30th to 70th percentile.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ✓ Surface Water (A1)
- ✓ High Water Table (A2)
- ✓ Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- ✓ Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- ✓ Aquatic Fauna (B13)
- __ Marl Deposits (B15) **(LRR U)**
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- ✓ Dry-Season Water Table (C2)
- __ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ✓ Geomorphic Position (D2)
- Shallow Aquitard (D3)
- ✓ FAC-Neutral Test (D5)
- Sphagnum moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	Yes _ ✓ _	No __	Depth (inches): 3 to 4
Water Table Present?	Yes _ ✓ _	No __	Depth (inches): 0 (surface)
Saturation Present? (includes capillary fringe)	Yes _ ✓ _	No __	Depth (inches): 0 (surface)

Wetland Hydrology Present? Yes __ ✓ __ No __ __

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

B7 & C9 are met because on-site field visit verified that saturation signatures seen on photos corresponded to a discernable depression, hydric soils, widespread ponding, & lack of crops (not planted because too wet?).

B13 - tadpoles were very common in ponded areas during the field visit.

Listed field indicators of wetland hydrology were observed during the field visit.

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: DP-03

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5.			
6.			
	0 = Total Cover		

50% of total cover: _____ 20% of total cover: _____

Sapling Stratum (Plot size: 30-foot radius)			
1. N/A			
2.			
3.			
4.			
5.			
6.			
	0 = Total Cover		

50% of total cover: _____ 20% of total cover: _____

Shrub Stratum (Plot size: 30-foot radius)			
1. N/A			
2.			
3.			
4.			
5.			
6.			
	0 = Total Cover		

50% of total cover: _____ 20% of total cover: _____

Herb Stratum (Plot size: 30-foot radius)			
1. Panicum capillare	70	Yes	FAC
2. Setaria parviflora	35	Yes	FACW
3. Ranunculus sp.	30		--
4. Ludwigia palustris	6		OBL
5. Cyperus flavicomus	3		FACW
6. Diodia virginiana	3		FACW
7. Juncus acuminatus	<3		OBL
8. Echinochloa muricata v. muricata	1		FACW
9. Commelina diffusa	1		FACW
10. Eleocharis obtusa	<1		OBL
11. Ammannia latifolia	<1		OBL
	154 = Total Cover		

50% of total cover: 77 20% of total cover: 30.8

Woody Vine Stratum (Plot size: 30-foot radius)			
1. N/A			
2.			
3.			
4.			
5.			
	0 = Total Cover		

50% of total cover: _____ 20% of total cover: _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: 0 (A)	0 (B)

Prevalence Index = B/A = 0

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

. . 2 - Dominance Test is >50%

. . 3 - Prevalence Index is ≤3.0[1]

. . Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine – All woody vines, regardless of height.

Chapter 5 of the Regional Supplement states "The goal is to determine the plant community that would occupy the site under normal circumstances, if the vegetation were not cleared or manipulated." It lists 5 possible ways to do this: 1) examine volunteer species, 2) look for undisturbed reference, 3)check NRCS reports, 4) examine pre-farming aerials, etc. & 5) cease cropping and see what plant community develops.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks: (If observed, list morphological adaptations below).

Plot taken within active cropland so no T, SAP, SHR or WV strata present. Per Chapter 5 of the Regional Supplement, the vegetation factor will be evaluated based on the volunteer (i.e., not planted) species that were observed in the plot. The majority of this farm field was planted in soybean (Glycine max), but not the area where the datapoint was taken (representative of a ~0.5-acre triangle). Unidentified species are assumed to have an UPL field indicator status.

SOIL

Sampling Point: DP-03

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 to 6	10YR3/1-3/2	100	N/A	N/A	N/A	N/A	sl	Ap
6 to 12	10YR2/1	50	N/A	N/A	N/A	N/A	scl	B
	10YR4/1	50	N/A	N/A	N/A	N/A	scl	B
12 to 18+								not recorded

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Organic Bodies (A6) **(LRR P, T, U)**
- ___ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ___ Muck Presence (A8) **(LRR U)**
- ___ 1 cm Muck (A9) **(LRR P, T)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Coast Prairie Redox (A16) **(MLRA 150A)**
- ___ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR P, S, T, U)**
- ___ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___ Thin Dark Surface (S9) **(LRR S, T, U)**
- ___ Loamy Mucky Mineral (F1) **(LRR O)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR U)**
- ___ Depleted Ochric (F11) **(MLRA 151)**
- ___ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ✓ Umbric Surface (F13) **(LRR P, T, U)**
- ___ Delta Ochric (F17) **(MLRA 151)**
- ___ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR O)**
- ___ 2 cm Muck (A10) **(LRR S)**
- ___ Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ___ Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___ Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: N/A

Depth (inches): N/A

Hydric Soil Present? Yes ___ ✓ ___ No ___

Remarks:

All agreed that these soils are hydric (close to meeting F13, did not look close enough for possible redox in dark matrix to see if F6 met). Less-developed plow zone. No oxidized rhizospheres observed, but amount of organics in Ap could mask their presence.

Farm 3627, Tract 4554, Fields 1-10 determined by Greg Hammer, NRCS to be PC-cropland on 03 July 2013.

Smith Farms
NAO-1998-02184 (98-R5657 and 13-V0134)
(Smith Farm 98-R5657)
Field visit on 24 Oct 2013

Photo 5: Datapoint DP-03 looking N from field edge at depressional area with widespread ponding, strongly hydrophytic plant community, etc. This portion of the farm field was either not planted or the soybeans did not germinate.

Photo 6: Same as Photo 5

Photo 7: Looking at DP-03. Note ponding and dense herbaceous cover.

Photo 8: Veg within DP-03: *Setaria parviflora*, *Ranunculus* sp., and others.

Photo 9: Same as Photo 8, but with more *Cyperus flavicomus*, *Ludwigia palustris* and others.

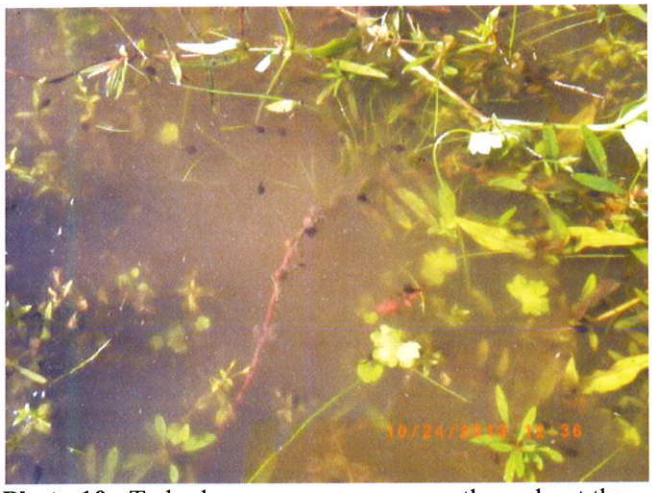


Photo 10: Tadpoles were very common throughout the ponded area in the southern portion of the field. Gives idea of duration.

Photo 11: Looking SW at unplanted, wet field depression.

Photo 12: Looking N along east edge of ponded area. Planting edge looks straight, suggesting ponded area was intentionally left unplanted.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Smith Farms NAO-1998-02184 (98-R5657 and 13-V0134) City/County: Chesapeake / Suffolk Sampling Date: 24 Oct 2013

Applicant/Owner: Smith Farms Enterprises or Boyd & Boyd P.C. c/o Mr. James M. Boyd State: VA Sampling Point: DP-04

Investigator(s): S. Martin & D. Knepper Section, Township, Range: N/A

Landform (hillslope, terrace, etc.): Mineral soil flat Local relief (concave, convex, none): shallow depression to flat Slope (%): 0 to 1

Subregion (LRR or MLRA): T Lat: 36.822223° Long: -76.448710° Datum: WGS84

Soil Map Unit Name: Tomotley-Deloss complex, 0 to 1 percent slopes (Typic Endoaquults) NWI classification: Not mapped as wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes __ __ No ✓ (If no, explain in Remarks.)

Are Vegetation Y, Soil Y, or Hydrology Y significantly disturbed? Are "Normal Circumstances" present? Yes __ __ No ✓

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes __	No ✓	**Is the Sampled Area within a Wetland?** Yes __ No ✓
Hydric Soil Present?	Yes ✓	No __	
Wetland Hydrology Present?	Yes __	No ✓	

Remarks:

Plot taken in center of active cropland in only area that had questionable hydrology signatures on recent aerial photography. Plot taken within active cropland so vegetation manipulated (planted with soybeans) and soil disturbed (well-developed plow zone). Local onsite hydrology has been manipulated (field crowning and associated ditches) since prior to the CWA. Chapter 5 of the Regional Supplement & Atypical Situations are applicable. Per Lake Kilby data the precipitation for August was just above the 30th percentile and for September was well below the 30th percentile October precipitation has been within the 30th to 70th percentile.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ Sediment Deposits (B2)
- __ Drift Deposits (B3)
- __ Algal Mat or Crust (B4)
- __ Iron Deposits (B5)
- __ Inundation Visible on Aerial Imagery (B7)
- __ Water-Stained Leaves (B9)
- __ Aquatic Fauna (B13)
- __ Marl Deposits (B15) **(LRR U)**
- __ Hydrogen Sulfide Odor (C1)
- __ Oxidized Rhizospheres along Living Roots (C3)
- __ Presence of Reduced Iron (C4)
- __ Recent Iron Reduction in Tilled Soils (C6)
- __ Thin Muck Surface (C7)
- __ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- __ Surface Soil Cracks (B6)
- __ Sparsely Vegetated Concave Surface (B8)
- __ Drainage Patterns (B10)
- __ Moss Trim Lines (B16)
- __ Dry-Season Water Table (C2)
- __ Crayfish Burrows (C8)
- __ Saturation Visible on Aerial Imagery (C9)
- ✓ Geomorphic Position (D2)
- __ Shallow Aquitard (D3)
- __ FAC-Neutral Test (D5)
- __ Sphagnum moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	Yes __	No ✓	Depth (inches): N/A
Water Table Present?	Yes __	No ✓	Depth (inches): N/A
Saturation Present? (includes capillary fringe)	Yes __	No ✓	Depth (inches): N/A

Wetland Hydrology Present? Yes __ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

C9 may be applicable because this indicator requires on-site verification that saturation signatures seen on photos correspond to hydric soils or other evidence of a seasonal high water table. During the field visit an extremely shallow depression was observed and the soybeans in this area were very slightly stunted in comparison to adjacent plantings (so D2 considered applicable). Before definitively checking C9 as present, I would have to review additional aerial photography and associated rainfall trends per NRCS hydrology tool for evaluating remote sensing data.

No other listed field indicators of wetland hydrology were observed during the field visit.

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: DP-04

Tree Stratum (Plot size: 30-foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5.			
6.			
	0 = Total Cover		

50% of total cover: _____ 20% of total cover: _____

Sapling Stratum (Plot size: 30-foot radius)			
1. N/A			
2.			
3.			
4.			
5.			
6.			
	0 = Total Cover		

50% of total cover: _____ 20% of total cover: _____

Shrub Stratum (Plot size: 30-foot radius)			
1. N/A			
2.			
3.			
4.			
5.			
6.			
	0 = Total Cover		

50% of total cover: _____ 20% of total cover: _____

Herb Stratum (Plot size: 30-foot radius)			
1. Ranunculus sp.	<1	Yes	-- (UPL)
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	1 = Total Cover		

50% of total cover: _____ 20% of total cover: _____

Woody Vine Stratum (Plot size: 30-foot radius)			
1. N/A			
2.			
3.			
4.			
5.			
	0 = Total Cover		

50% of total cover: _____ 20% of total cover: _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: 0 (A)	0 (B)

Prevalence Index = B/A = 0

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

. . 2 - Dominance Test is >50%

. . 3 - Prevalence Index is ≤3.0[1]

. . Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine – All woody vines, regardless of height.

Chapter 5 of the Regional Supplement states "The goal is to determine the plant community that would occupy the site under normal circumstances, if the vegetation were not cleared or manipulated." It lists 5 possible ways to do this: 1) examine volunteer species, 2) look for undisturbed reference, 3)check NRCS reports, 4) examine pre-farming aerials, etc. & 5) cease cropping and see what plant community develops.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks: (If observed, list morphological adaptations below).

Plot taken within active cropland so no T, SAP, SHR or WV strata present. Per Chapter 5 of the Regional Supplement, the vegetation factor will be evaluated based on the volunteer (i.e., not planted) species that were observed in the plot. The sample plot was planted in soybean (Glycine max) which at the time of the field visit comprised ~85% of the veg cover. Unidentified species are assumed to have an UPL field indicator status. Other than the planted soybeans, other vegetation is extremely sparse.

SOIL

Sampling Point: DP-04

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 to 9	10YR2/1	100	N/A	N/A	N/A	N/A	sl	Ap
9 to 12+	10YR5/1-6/1	80	10YR5/4-5/6	20	C	M	scl	B; distinct

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Organic Bodies (A6) **(LRR P, T, U)**
- ___ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ___ Muck Presence (A8) **(LRR U)**
- ___ 1 cm Muck (A9) **(LRR P, T)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Coast Prairie Redox (A16) **(MLRA 150A)**
- ___ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR P, S, T, U)**
- ___ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___ Thin Dark Surface (S9) **(LRR S, T, U)**
- ___ Loamy Mucky Mineral (F1) **(LRR O)**
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR U)**
- ___ Depleted Ochric (F11) **(MLRA 151)**
- ___ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ___ Umbric Surface (F13) **(LRR P, T, U)**
- ___ Delta Ochric (F17) **(MLRA 151)**
- ___ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR O)**
- ___ 2 cm Muck (A10) **(LRR S)**
- ___ Reduced Vertic (F18) **(outside MLRA 150A,B)**
- ___ Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___ Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: N/A

Depth (inches): N/A

Hydric Soil Present? Yes ___ ✓ ___ No ___

Remarks:

Assumed B horizon is at least 6" thick. Plow zone present. No oxidized rhizospheres observed, but amount of organics in Ap could mask their presence.

Farm 3627, Tract 4554, Fields 1-10 determined by Greg Hammer, NRCS to be PC-cropland on 03 July 2013.

Smith Farms
NAO-1998-02184 (98-R5657 and 13-V0134)
(Smith Farm 98-R5657)
Field visit on 24 Oct 2013

Photo 13: Looking W at DP-04 within active soybean field. Note there is very little veg other than planted soybeans. Very slight depression and associated slightly stunted soybeans.

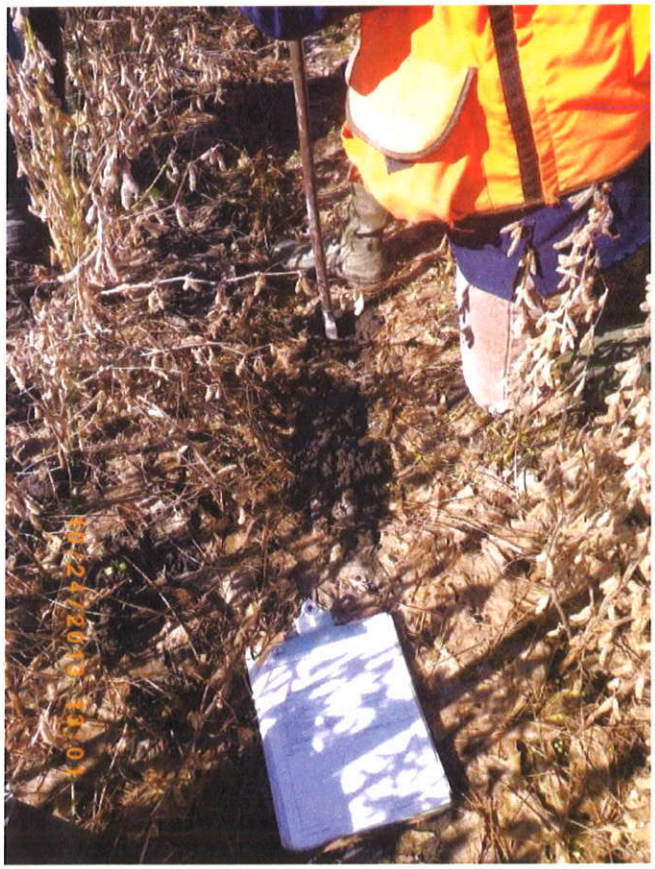


Photo 14: Same as above, soil profile at DP-04.

Shamet, Stefania

From: Kaplan, David (ENRD) <David.Kaplan@usdoj.gov>
Sent: Monday, December 23, 2013 3:27 PM
To: Shamet, Stefania
Subject: Smith Farm -- Conservation Easment Notice
Attachments: 20131220160236309.pdf

Hi Stef –

Non-responsive Non-responsive

See the email below from Jim Boyd, transmitting his notice that Smith Farm placed the required conservation easement on the easements. I haven't reviewed the attachment yet.

David

From: Jim Boyd [mailto:jim@boydlaw.org]
Sent: Saturday, December 21, 2013 3:10 PM
To: Kaplan, David (ENRD)
Cc: jim@boydlaw.org; linda@boydlaw.org
Subject: Fwd: Message from "RNP002673389A70"

Dear David,
I have sent to you and Steph, as of yesterday, via overnight delivery, notice of Smith Farm Enterprises, LLC's having fulfilled it's obligation under the Consent Decree to effect the placement of conservation easements over the specified acreages on the SmithFarm, Johnson and Kirk tracts. This e-mail is simply to provide you an electronic copy of that notice.
I am traveling and do not have Steph's e-mail address with me. I would appreciate your forwarding this e-mail to her and your acknowledgment of your receipt of the same from me, by your reply.
Thanks and Merry Christmas,
Jimmy

Linda, please copy David's reply to our file on receipt, thanks!

Sent from my iPad

Begin forwarded message:

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> **Date:** December 20, 2013, 4:02:36 PM EST
> **To:** "Jim" <jim@boydlaw.org>
> **Subject: Message from "RNP002673389A70"**
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SMITH FARM ENTERPRISES, LLC
One Commercial Place
1405 Bank of America Center
Norfolk, Virginia 23510

December 20, 2013

Via Federal Express and E-mail
Tracking Number #7970 7668 4706

Stefania D. Shamet, Assistant Regional Counsel
Water and General Law Branch
Office of Regional Counsel
United States Environmental Protection Agency
Region III
MC 3RC20
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

Via Federal Express and E-mail
Tracking Number #7974 7675 5275

Associate Director, Office of Environmental Programs
Environmental Assessment and Innovation Division
United States Environmental Protection Agency
Region III
MC 3EA40
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

Via Regular Mail and E-mail

David J. Kaplan
Trial Attorney
Environmental Defense Section
Environmental and Natural Resources Division
U.S. Department of Justice
P.O. Box 7611
Washington, D.C. 20044-7611

Re: Notice of Completed Tasks Pursuant to Consent Decree between United States of America and Smith Farm Enterprises, LLC

Dear Mrs. Shamet, Associate Director and Mr. Kaplan:

Please receive this Notice, pursuant to Section IV, "Specific Provisions" of the above referenced Consent Decree, of the completion of the following tasks by Smith Farm Enterprises, LLC, as required pursuant to said Consent Decree:

1. Section IV "Specific Provisions, Preservation Areas", paragraph 19 (a) a conservation easement on 15 acres on the Smith Farms site on November 20, 2013. 19(b) a conservation easement on 80 acres north of the Smith Farm site known as the "Johnson Tract" was effected on November 13, 2013. 19 (c) a conservation easement upon 235 known as the "Kirk Site" was effected on September 27, 2013.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel property gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering such information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Most sincerely yours,

James M. Boyd, Manager
Smith Farm Enterprises, LLC

JMB/lcp